

STATEMENT OF WORK

Background:

INL was requested by the National Anti-Corruption Bureau of Ukraine (NABU) to assist them in purchasing forensic equipment. The NABU established its own digital forensic laboratory (forensic lab) in 2015. Currently the lab consists of 4 examiners and a manager. There are plans in staff increase. Advanced forensic equipment is needed and will be used for conducting forensic examinations of seized digital evidences by the NABU forensic examiners and detectives within the lab as well as during executing search warrants directly at the search scene.

Work to be done. The vendor is required to sell forensic equipment that meet specifications below. The price should also include delivery cost to Kyiv, Ukraine.

VAT policy: This is a technical assistance Project registered by Ministry of Economic Development and Trade of Ukraine. The offers may be submitted without VAT. The copy of registration card of the project and procurement plan will be provided upon request.

Warranty Requirements: Contractor should verify that all required IT-equipment shall be **new and guaranteed**, with providing copy of **warranty information**. Contractor should provide/support warranty services with ability to replace malfunctioned equipment **locally in Ukraine**.

Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve contractor of warranty on work that incorporates products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with contractor.

Reinstatement of Warranty: When work covered by warranty has failed and been corrected by replacement, reinstate warranty by written endorsement. Reinstated warranty shall be equal to original warranty with equitable adjustment for depreciation.

Replacement Cost: Upon determination that work covered by warranty has failed, replace work to acceptable condition complying with requirements of contract documents. Contractor is responsible for cost of replacing or rebuilding defective work.

Voltage, frequency and plug requirements: All devices must be compatible with standard Ukrainian voltage (220-230 volts), support 50 Hz current frequency and have C (European) or F (Schuko) plug type.

Delivery: Delivery of all items should not exceed more than 30 working days after contract signed.

List of Equipment

No	Project characteristics	Type	Quantity	Price, USD
1	Tableau Forensic Imager TX1 Kit with Case	Hardware	2	
2	Tableau Forensic Duplicator TD2U with Case	Hardware	4	
3	Voom Shadow 3 with Pelican Case	Hardware	1	
4	Cellebrite UFED 4PC Ultimate with 3 years Software Renewal	Hardware/ Software	1	
5	BlackBag MacQuisition (1TB SSD) with 3-year Software Maintenance Support	Hardware/ Software	2	

1. Tableau Forensic Imager TX1 Kit with Case (BRAND NAME INCLUDED)

Quantity: 2 (two)



BRAND NAME JUSTIFICATION

The TX1 can forensically image a broad range of media, including PCIe and 10Gb Ethernet devices, and supports up to two active forensic jobs at a time (simultaneous imaging). When imaging, TX1 outputs to raw .DD and .dmg formats, .e01 (compressed), or .ex01 (compressed), and features extensive file system support (ExFAT, NTFS, EXT4, FAT32, HFS+). The end user has already in use other Tableau's equipment that includes five PCIe adapter kits (TDA7-1 + TDA7-2 + TDA7-3) for PCIe drive operations. The kits are compatible with TX1 Imager to extend its functionality. This is the reason to buy TX1 device.

SPECIFICATIONS

Product name	Tableau Forensic Imager TX1
Features	<ul style="list-style-type: none">• Acquisition of PCIe, USB 3.0, SATA, SAS, FireWire, IDE, and network shares (iSCSI and CIFS).• The ability to target file-based evidence with a powerful logical imaging function, including an intelligent, easy to use search engine and industry standard file outputs (.Lx01 and metadata .CSV files).• Output to USB 3.0, SATA, SAS, and network shares (iSCSI and CIFS).• The ability to export locally attached media as an iSCSI share for remote, network-based acquisition.• Support for cableless, toolless, SATA or SAS destination drive connections via the optional drive bay (TX1-S1), which also provides drive cooling.• The ability to duplicate a source drive to up to four destination drives.• Destination drives that can be a mix of directly connected drives and network shares.• The ability to run multiple jobs in parallel of any type (clone, physical image, or logical image) to any available destination media.• The ability to run up to two forensic jobs simultaneously and add additional jobs to the queue.• Superior network imaging performance through a 10 gigabit Ethernet interface, with auto-negotiation for use with slower 1 gigabit Ethernet networks.• Superior data transfer rates, even while performing calculations of MD5, SHA-1, and SHA256 hash values.• Viewing extensive drive detail, including filesystem information and available free space.

	<ul style="list-style-type: none"> • Detection and notification of many popular whole disk encryption types and Apple device Core Storage volumes. • Browsing drive filesystems. • Extensive filesystem support - ExFAT, NTFS, EXT4, FAT32, and HFS+. • Whole-disk, open standard, destination drive encryption using XTS-AES. • 10 Tableau TX1 User Guide Version 2.2 • Automatic blank checking of source and destination drives. • HPA, DCO, and AMA support for the detection and handling of hidden/protected data areas on source drives. This includes standalone HPA/DCO/AMA disablement, DCO “shelving”, and trim support for the creation of a destination DCO or AMA. • Detailed forensic logs for case documentation. • Clearly labeled and color-coded source (write blocked) and destination (read/write) ports. • User interface localization support for German, English, Spanish, French, Portuguese, Russian, Turkish, and Chinese languages, including virtual keyboard support for user inputs. <p>More features: https://www.guidancesoftware.com/tableau/hardware/tx1</p>
Display	7.0 in. Graphic LCD (600 x 1024 Resolution) with Capacitive Touch-screen
Connectors: Source Side	Two SATA/SAS (6 Gbps) Signal Connectors One USB 3.1 Gen 1 (5 Gbps) Standard-A Connector One 1394b "FireWire800" Signal Connector One PCIe (10 Gbps) Adapter Connector Two 3M-style 4-pin Power Connectors for the SATA/SAS Drive Power
Connectors: Destination Side	Two SATA/SAS (6 Gbps) Signal Connectors One USB 3.1 Gen 1 (5 Gbps) Standard-A Connector One TX1-S1 (Two SATA/SAS 6 Gbps) Signal Connector Two 3M-style 4-pin Power Connectors for the SATA/SAS Drive Power
Power Button	One Power On/Off Button
Ethernet	One 10 Gbps Ethernet Connection (Source or Destination)
Dimensions	9.5 in. (L) x 6.5 in. (W) x 2.625 in. (H)
Weight	980 g
Warranty and support	TX1 Unit - Three Years Parts and Workmanship, available in Ukraine TX1-S1 and All TX1 Accessories - One Year Parts and Workmanship, available in Ukraine
Plug type	EU plug: C (European type) or F (Schuko)
Power (Voltage) consumption	220-240 V
Frequency	50 Hz
Product Contents	Forensic Imager TX1 Forensic Imager SATA/SAS DriveBay Power and Signal Cables TP6 Power Supply

	Five pack of Velcro Cable Ties Microfiber Screen Wipe TX1 Quick Reference Guide + Protective, Hard-sided Case with Foam
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2. Tableau Forensic Duplicator TD2u Kit with Case (BRAND NAME INCLUDED)

Quantity: 4 (four)



BRAND NAME JUSTIFICATION

Tableau Forensic Duplicator TD2u Kit is the only device on the market with weight under 350g. It also features a small footprint that allows to carry in a backpack with other forensic equipment. The hardware is intended to be used on places of search warrant. The Tableau equipment has been being also in use in the lab since 2017 as main equipment for drive operation. Many accessories are common in the hardware that makes usage of the tools more safe and effective. These are the reasons to buy Tableau Forensic Duplicator TD2u Kit.

SPECIFICATIONS

The Tableau Forensic Duplicator was built to excel in both field and lab environments. It is a full-featured, fully-forensic duplicator that offers the ideal combination of easy operation, reliability, and ultra-fast forensic imaging of hard disks and solid-state-drives.

Product name	Tableau Forensic Duplicator TD2u
Features	<ul style="list-style-type: none">• Image SATA, USB 3.0, and IDE hard disks natively• Imaging speeds in excess of 15 GB/minute (.e01, compressed with MD5 and SHA-1 hashing)• Forensic mode always on (MD5 and SHA-1 hashing)• Capable of making one (1:1), two (1:2), or three (1:3) forensically-sound copies of digital storage devices• Outputs to raw DD, .e01 (compressed), .ex01 (compressed), or .dmg formats• Wiping speeds in excess of 25 GB/minute• Supports whole disk encryption of destination drives• Includes a color LCD for crisp, easy-to-view operational and device status information• Intuitive user interface provides easy operation with minimal training• Nine LEDs provide status on power, source drive detection, destination drive detection, and activity
Standard operations	Disk-to-Disk (clone) duplication Disk-to-File (image) duplication Format Wipe Hash (MD5 or SHA-1) HPA/DCO detection and removal Blank Disk Check
Connectors: Source Side	One SATA signal connector One USB 3.0 Standard-A connector

	One IDE signal connector One 3M-style 4-pin power connector for the SATA or IDE drive
Connectors: Destination Side	Two SATA signal connectors One USB 3.0 Standard-A connector Two 3M-style 4-pin power connectors for the SATA drive
Display	3.5 in. Graphic LCD (320 x 480 resolution)
Compatibility	Parallel ATA hard drives with Logical Block Addressing (LBA) support USB 3.0, 2.0, and 1.1 devices Tableau model TP4 or TP5 SATA I, II, or III hard drives
Dimensions	5.65 in. (L) x 5 in. (W) x 2.25 in. (H)
Weight	11.3oz (320g)
Warranty and support	One year parts and workmanship from date of purchase, available in Ukraine
Plug type	EU plug: C (European type) or F (Schuko)
Power (Voltage) consumption	220-240 V
Frequency	50 Hz
Product Contents	Tableau Forensic Duplicator [TD2u] Tableau Power Supply [TP5] Tableau Molex to 3M Drive Power Cable - 8" [TC2-8-R2] Tableau SATA to 3M Drive Power Cable - 8" [TC5-8-R2] Tableau SATA Signal Cable - 8" [TC3-8] Tableau IDE Cable - 8" [TC6-8] Tableau Unified SATA/SAS Signal and Power Cable (3M-style) - 8" [TC4-8-R2] (x3) Tableau USB 2.0 A to Mini B Cable - 6' [TC8] Five pack of Velcro Cable Ties [TPKG-VCT-5] Microfiber Screen Wipe [TPKG-CLOTH] TD2u Quick Reference Guide + Protective, Hard-sided Case with Foam

3. Voom Shadow 3 with Pelican Case (BRAND NAME INCLUDED)

Quantity: 1 (one)



BRAND NAME JUSTIFICATION

Voom Shadow 3 is the only forensic hardware tool on the market in the world that provides possibility to boot the target system without altering its configuration. This function is extremely in demand during searches and in the lab if examiner needs to reconstruct the system behavior. This is the reason to buy the equipment.

SPECIFICATIONS

This completely unique and patented forensic tool allows you to boot and run a suspect computer on the spot and in minutes without compromising evidence - no drive imaging required. Run all applications, upload forensics software, operate suspect's customized programs, present evidence in its native environment and ensure easy comprehension by laypersons. Works with all operating systems: Macintosh, Linux, Unix, Microsoft (from DOS to Windows 7). Eliminate software or hardware incompatibility issues between the investigator's computer and the suspect computer commonly introduced in virtual viewing environments. Guarantee suspect hard drive is forensically preserved with built-in hardware write-blocker.

Features	<ul style="list-style-type: none">• Boot and operate Windows, Linux, Mac: any O/S• Run any application on suspect computer• Operate DVR's and game consoles that boot SATA drives• Works with SATA and IDE hard drives and SSD's• Field Triage & Investigation• Lab Triage & Lab Investigation• Present live in court, or produce print/video/screen shots directly from suspect computer - intuitive evidence presentation• Immediate evidence/intelligence gathering• Allows suspect PC to decrypt data in many cases• Works with boot drives and secondary drives <p>More features: https://www.voomtech.com/shadow-3</p>
Kit includes	<p>1 Voom Shadow 3 System 1 DC power cable (Shadow to suspect hard drive) 1 0.5m SATA Cable (Used for all configurations) 1 Auto-ranging AC Power Supply 1 Standard serial interface cable 1 User Guide</p> <p>SATA Laptop Adapter Kit: 1 SATA Extension Cable</p> <p>IDE Adapter Kit: 1 IDE to SATA Adapter 1 SATA to IDE Adapter</p>

	+ Pelican Case
Warranty	1-year warranty, available in Ukraine
Plug type	EU plug: C (European type) or F (Schuko)
Power (Voltage) consumption	220-240 V
Frequency	50 Hz

4. Cellebrite UFED 4PC Ultimate with 3 years Software Renewal (BRAND NAME INCLUDED)

Quantity: 1 (one)



BRAND NAME JUSTIFICATION

Cellebrite UFED 4PC Ultimate forensic equipment was selected due to significant fact that this brand and this exact model is already in use in the NABU. Forensic examiners have been trained to operate Cellebrite software. Cellebrite brand forensic equipment fully meet required by the NABU characteristics for single purpose, specific location use, among which is support feature and smartphones, across all major device manufacturers and operating systems; ability to conduct in-depth physical, file system, password and logical extractions of evidentiary data; frequent software updates to ensure compatibility with new phones as they enter the market. Notably that with this brand equipment it would be easy to get warrant services in Kyiv because of official distributor presented there. This is the reason for purchasing Cellebrite forensic equipment.

SPECIFICATIONS

Cellebrite UFED offers market-leading access to digital devices and unsurpassed capabilities to extract and decode every ounce of data. Delve deep and thoroughly review logical, file system and physically extracted data to discover critical evidence and easily share findings with the entire investigative team. With ongoing software updates and support across a variety of hardware platforms, ensure that teams have the leading-edge digital forensic examination capabilities when and where they are needed most.

Features	<ul style="list-style-type: none">• Recover the data from the devices including smartphones, feature phones, tablets, GPS devices, smart watches and applications• Unlock devices with ease Bypass pattern, password or PIN locks and overcome encryption challenges• Perform forensically sound advanced logical, file system and physical extractions of intact, hidden and deleted data• Data Decoding• Reassemble device and application data into readable formats with advanced decoding capabilities, such as Python scripting and Hex highlighting• Carve unallocated space in a device's memory to recover deleted data and media• Discover new sources of data and parse through unknown and unsupported databases by applying fuzzy methods and using the SQLite Data Wizard to reveal the greatest amount of evidence• Reveal insights with improved processes• Unify data for more comprehensive review• Automatically consolidate data from varied sources and formats in a
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	<p>unified view</p> <ul style="list-style-type: none"> • Focus analysis with data searching, filtering and grouping • Identify, tag and highlight information and images against watch lists, Project VIC and other databases • View maps and timelines to determine the strength of connections between people, places and events • Translate extracted data into one language <p>More features: https://www.cellebrite.com/en/platforms/</p>
UFED Ultimate Forensic Kit Contents	<p>UFED Device Adapter Case Carrying UFED Set Cable & Tip Organizer Cable & Tip Reader Card Memory UFED Adapter SIM Multi Cards Cloning ID SIM UFED Cards Cloning ID SIM Micro Cards Cloning ID SIM Nano Cable up-Power Phone Connectors Phone for Brush Cleaning Strap Velcro Tip Cartridge Tips Spare Drive Flash USB Power Extension Cable</p>
Software contents	<p>1. UFED Ultimate 4PC Ultimate 2. UFED Physical Analyzer 3. Reader</p>
Platform type	4PC
Hardware Warranty	Six (6) months after delivery, available in Ukraine
Software renewal term	36 months
Territory of usage	Ukraine

5. BlackBag MacQuisition (1TB SSD) with 3-year Software Maintenance Support (BRAND NAME INCLUDED)

Quantity: 2 (two)



MACQUISITION™

BRAND JUSTIFICATION

MacQuisition is a forensic imaging and acquisition tool capable of booting hundreds of Mac OS X systems, as well as acquiring live targeted data. MacQuisition is the trusted forensic solution that runs within a native OS X boot environment. Below is the range of Mac systems supported by the newest version of MacQuisition, followed by instructions for examiners in need of a solution for older Mac hardware.

The NABU has been using BlackBag BlackLight as a main tool for examinations of Mac OS X systems. We need to have dedicated tool MacQuisition for forensic imaging and acquisition of Mac OS X systems, that compatible with BlackBag BlackLight Software. Using the both tools the examiner gets co called End-To-End APFS solution to acquire, decrypt and analyze devices with APFS – newest Apple file system. Also the NABU examiners are going to take part on BlackBag trainings on how to use the both tools for comprehensive Apple examinations. This is the reason for purchasing MacQuisition forensic software.

SPECIFICATIONS

MacQuisition is a powerful, 3-in-1 solution for live data acquisition, targeted data collection, and forensic imaging. Tested and used by experienced examiners for over a decade, MacQuisition runs on the Mac OS X operating system and safely boots and acquires data from over 185 different Macintosh computer models in their native environment - even Fusion Drives. There's no need for complicated take-aparts.

More info: on <https://www.blackbagtech.com>

MAIN SPECIFICATIONS	
Features support	<ul style="list-style-type: none">• Target and forensically acquire files, folders, and user directories while avoiding known system files and other unneeded data• Preserve valuable metadata by maintaining its association with the original file• Authenticate collected data using any or all MD5, SHA-1, or SHA-256 hash functions• Thoroughly log data acquisitions and source device attributes throughout the collection process• Selectively acquire email, chat, address book, Calendar, and other data on a per-user, per-volume basis• Capture important live data such as Internet, chat, and multimedia files in real time• Soundly acquire and save volatile Random Access Memory (RAM) contents to a destination device• Choose from 26 unique system data collection options, including active system processes, current system state, and print queue

	<p>status</p> <ul style="list-style-type: none"> • Extensively log live data acquisition information throughout the collection process • Ability to create physical images of Macs with the Apple T2 chip • Support for imaging APFS Fusion drives • Capture RAM and targeted collections live on Mojave • Support added to boot newer hardware • Formatting and imaging to NTFS drives • Unlocking APFS with FileVault 2 encryption • Capturing RAM and data collections live on High Sierra 10.13 • Creating logical data containers for collections • Support for APFS formatted drives, with or without encryption, including logical file collection <p>(For a complete list of features visit: https://www.blackbagtech.com/software-products/macquisition.html#Features)</p>
Hardware Kit Contents	<p>MacQuisition SSD</p> <p>USB cable</p> <p>USB-C cable</p> <p>Other</p>
SSD capacity	1TB SSD
Warranty	1 year, available in Ukraine
Price Options	Government (BBMACQ-SSD-1TB-Discoun-LEGOV)
Software Renewal	36 months
Territory of usage	Ukraine